

PATENT CLAIMS:

1 – 12 (canceled)

13. (new) A method for removing a partial layer area of a component, comprising:

removing the partial area by an acid treatment or a mechanical treatment;

diffusing a diffusion agent comprised of a first element and a second element into the partial area of the component; and

diffusing the first or second element of the diffusion agent into the component directly from a gas phase.

14. (new) The method as claimed in claim 13, wherein the component is comprised of a metal and a metal compound.

15. (new) The method as claimed in claim 13, wherein the component is comprised of a metal or a metal compound.

16. (new) The method as claimed in claim 13, wherein the second element of the diffusion agent is metallic.

17. (new) The method as claimed in claim 13, wherein the first or second element of the diffusion agent is aluminum.

18. (new) The method as claimed in claim 13, wherein the first or second element of the diffusion agent is cobalt.

19. (new) The method as claimed in claim 13, wherein the first element of the diffusion agent is aluminum and the second element of the diffusion agent is cobalt.

20. (new) The method as claimed in claim 13, wherein the diffusion agent is applied to a surface of the component.

21. (new) The method as claimed in claim 20, wherein the diffusion agent is applied by plasma spraying.

22. (new) The method as claimed in claim 20, wherein the diffusion agent is applied by evaporation coating.

23. (new) The method as claimed in claim 20, wherein the diffusion agent is applied by chemical vapor deposition.

24. (new) The method as claimed in claim 20, wherein the diffusion agent is applied by a pack method.

25. (new) The method as claimed in claim 13, wherein the diffusion causes a phase change in the component or partial area.

26. (new) The method as claimed in claim 13, wherein the partial area is an MCrAlY layer where M is an element iron, cobalt or nickel.

27. (new) A method for removing a partial area of a component having a metal compound layer, comprising:

removing the partial area by an acid treatment or a mechanical treatment, a diffusion agent comprising two components diffusing into the partial area of the metal compound layer, and two components of the diffusion agent are metallic, and one component of the diffusion agent diffuses into the component directly from a gas phase.